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ABSTRACT

This paper explores the differences between the understanding or knowledge of certain social rules, and their use, as seen in pronoun selection, by children in two different social settings within the same culture area. Different philosophies concerning the interdependence of social, cognitive, and linguistic development are reviewed. The specific study described involved three age groups of Hungarian children living in two different locations. They were required to complete a multiple-choice test and a role-playing test, designed to examine the interrelationships between the acquisition of social and linguistic rules, and the development of logical structures, based on the complexity of the Hungarian personal pronoun system. It was assumed that different social environments affect both the acquisition of sociolinguistic knowledge and role-taking ability, so that the two areas chosen differed in the areas of the adult role system and the amount of verbal and social interaction to which the children were exposed. Results indicate that though there are noticeable differences in the overall performance of the two groups, both groups performed better on the multiple-choice test than in role playing. Social environment has limited effect on knowledge of appropriate forms, while it definitely influences ability to use proper forms. (CLK)

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Comprehension and Use of Social Rules in Pronoun Selection by Hungarian Children

by

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Whereas there is increasing evidence in psychology, psycholinguistics and sociolinguistics that social, cognitive and linguistic development in children should be perceived as the development of separable but interdependent systems, the nature of this interdependence is just now beginning to be explored. Ervin-Tripp and Cook-Gumperz, for example, view the relationship in the following manner: "We can argue that the social development of the child and linguistic development have a mutual dependence; his communicative needs motivate his development of the formal means. On the other hand, his strategies are constrained by his capacities to handle the formal devices available in his grammar, phonology, and sociolinguistic norms around him" (1974:3). This position is basically in agreement with that of Piaget and his collaborators (Piaget 1970, Sinclair deZwart 1967) who claim that language development is preceded by the development of logical operations which provide an underlying structure for the former. Similarly, Slobin believes that "every normal human child constructs for himself a grammar of his native language. It is the task of developmental psycholinguistics to describe and attempt to explain the intricate phenomena which lie beneath this simple statement. These underlying phenomena are essentially cognitive. In order for the child to construct a grammar: 1./ he must be able to cognize the physical and social events which are encoded in language and 2./ he must be able to process, organize and store linguistic information" (1973:176). Others, for example Bruner and his associates (1966), claim that it is language that provides the major stimulant and the major mode of developmental reorganization in conceptual growth. There is increasing evidence (Schatz and Gelman 1973) that even very young children have a considerable range of alternate linguistic repertoires and forms which demonstrates their

sophistication in understanding social situations and rules. The interesting problem, then, is the relationship of these social and linguistic skills to logical or extralinguistic cognitive operations. What kinds of cognitive operations does the child have to be capable of before he can communicate certain ways? Obviously, his knowledge of social features will influence his strategies and rules in communicating but ~~is~~ it this knowledge that enables him to communicate successfully? Is the comprehension of social and linguistic rules a sufficient precondition of communicative competence or is there another kind of cognitive operation that is required? Or conversely, can we argue that it is a knowledge of social and linguistic rules which may serve as a stimulant for the development of cognitive structures? Since operational structures develop and the knowledge of social and linguistic rules are acquired in some sort of a social context, examining the effects of different environments on these areas should illuminate their relationship and order of development.

This paper explores the differences between the understanding or knowledge of and the use of certain social rules in pronoun selection by children who grow up in two different social settings within the same culture area. Three age groups of children living in two locations were tested on two tasks. The tasks, a multiple choice test and a role playing test, were designed to measure the differences between the children's knowledge of the adult personal pronoun system and their ability to play the role of various adults by utilizing that knowledge. The tasks also allowed the examination of the differences in strategies that are utilized by the different age groups in both comprehension and production. Since it was assumed that different social environments would have an effect on both the acquisition of sociolinguistic knowledge and the development of perspectivism (role-taking ability), two locations were chosen which differed

systematically on those dimensions which presumably would have most impact on these areas, namely, the relative complexity of the adult role system and the amount of verbal and social interaction that children were exposed to. The measures and their relation to the social settings are used to examine the interrelationships between the acquisition of social and linguistic rules and the development of logical structures.

The tasks which were developed for this research are based on the complexity of the Hungarian personal pronoun system. Social roles and relationships in Hungary are linguistically marked and categorized by a system of address terms and pronouns which are used each time individuals interact and which involve a series of morphological and syntactical changes on the sentence level. The use of a particular term depends on the relationship of both the speaker and the listener and the context of the social situation. The terms communicate such metalinguistic features as deference, intimacy, solidarity or distance. The adult system contains four terms: familiar (T), formal (V), polite (P) and formal-polite (VP); the children's only two: familiar and polite. Time and space does not permit the more detailed description of either system here. (For details, see Appendix.)

The child in Hungary hears the differences in the adults' speech from the time he begins to understand it and from the time he begins to communicate. From an early age on, he must not only learn to differentiate between the category of persons with whom he uses the familiar or the polite, but he also becomes aware of a more complex differentiation used by the adults around him. In one sense, this can be considered social and linguistic rule learning, in another it might be thought of as a training in role differentiation and cognitive complexity. Children who grow

up in an environment which is relatively non-verbal and where interaction between individuals is infrequent might receive less training in both of these areas than children who are exposed to constant interaction between large numbers of people. On the other hand, children in both these environments learn the same language and the same linguistic rules, the major difference being that the isolated children have less opportunities for actually observing the rules in operation and for practicing their skills at interaction and communication. The following then is a comparison of children growing up in relative isolation with children living in a town on two tasks designed: 1./ to measure the comprehension of the adult personal pronoun system, as measured by their ability to recognize the appropriate form used between different adults and 2./ to measure the ability to play the role of others by acting out the role of these adults. The comparison of the two groups' performance on these tasks should enable us to understand some of the problems related to cognitive and linguistic development. For example, it will be possible to see whether the isolated children learn to comprehend the rules of the adult pronoun system as well as the town children and whether they are also able to take the role of others as well. If they perform equally well on the task designed to measure the understanding of the adult system but are less capable of assuming the role of others, we will be able to answer some of the questions posed at the outset and advance suggestions regarding the relationship between the development of linguistic and logical structures. The two groups of children came from two communities in rural Hungary: from a dispersed farm area where families live in relative isolation and the opportunities for interaction with peers and adults is limited and from a town in the same general culture area. There were no systematic religious, linguistic

or ideological differences among the communities. All of those who were tested lived in intact nuclear families. All families were "working class" or peasant with relatively low incomes and the type and amount of schooling received by parents and children in the two groups were virtually identical.

The dispersed area is situated in the middle of the Hungarian plains, surrounding the town of Nagykoros. Families of the children studied reside on isolated farms within an area owned and cultivated by one of the local cooperatives. There are no paved roads in the area and the majority of the non-paved roads are only semi-permanent and become almost completely non-negotiable in the winter and rainy season. Most of the residents are members of the cooperative and work in groups on assigned tasks which most often take them some distance away from the homestead. Since cooperative members are entitled to a privately owned parcel on the communally owned land which they independently cultivate, the majority of the women also work. The combination of cooperative labor and private cultivation results in adults leaving the home at an early hour and returning late in the evening when they occupy themselves with the feeding and care of the animals.

Most of the early learning experiences of the children take place in and around the farm, either in the company of the mother, the grandparents or an older sibling. Prior to school age, the children rarely leave the farm, with the possible exception of being taken to the grandparents' homestead by a mother on her way to work or to the family's parcel where they spend the day alone while the mother occupies herself with her tasks. Since the average number of children per family is two and the average age difference between siblings is about three years, interaction takes place only with older or younger individuals, almost never with

contemporaries. Children spend most of their time within the farmyard, or in colder months in the kitchen, in solitary play or observing the others. Most adults are either absent during most of the day or are engaged in performing a variety of chores in the immediate proximity of the child. Older siblings are also recruited for work from an early age on.

School children walk to attend the local district school for half a day during the first four years. Their walk most often leads through unoccupied farm land where they only infrequently encounter other residents. Opportunities for after-school social interaction or for the development of play groups is limited since children are required to help contribute to the family's economy by taking care of the animals and must return home immediately after school.

Interaction and communication between adult members of the family is limited to the evenings. Adults return late from their day's work on the cooperative's fields and during most of the evening are occupied with chores. By the time they are finished, the younger children have gone to bed. Older children are allowed to remain up longer but since most of the farms have no electricity, especially in the dark winter months, adults also go to bed relatively early. Interaction with non-family members occurs infrequently. Godparents visit on the child's birthday or name's day and occasionally a farmer may briefly stop by on his way home from work to exchange information or to drink a glass of wine. Children are almost never taken to visiting. The only opportunities for leaving the farm community come when they accompany adults to the town's market, to the yearly fair or possibly the doctor.

The town, Nagykoros, with a population of 15,000 inhabitants is the major marketing and administrative center for this area, as well as a

traditional cultural and educational center of some importance for this part of the country.

Most of the houses are one-family dwellings surrounded by yards, vegetable gardens or orchards. The structure of the families is similar to the farm area. Most of the mothers also work, and the care of young children (over age three) is entrusted to grandparents, neighbors or older siblings. From an early age on, children are allowed to leave the house alone and play with neighbor children. They have large peer groups with whom they spend a large amount of their time and are free to roam around inside or outside of the town without adult control. They are only infrequently required to help around the house and perform chores since most of these families do not have animals that need pasturing or feeding. Taking care of younger siblings is the most usual task entrusted to the older children which they frequently perform by taking or carrying the younger children around all day, paying only minimum attention required to them. Most of the activities of the town children occur in groups. Interaction, however, is not limited to peers; children also encounter a number of known and unknown adults in a variety of social settings (their friends' houses, shops, markets, etc.). The time spent at home or alone is relatively short.

Interaction and communication between family members is more frequent than on the farms. Since the adults have no or less evening chores around the house, evenings are often spent at home with the others in the family or with neighbors or relatives who often come by. In general, these families seem to be more verbal than their isolated counterparts.

In summary, while the communities and the samples of children tested were similar in many aspects, the major differences between the two

environments were due to their relative size and complexity which, from the child's point of view, resulted in different opportunities for social-verbal interaction. The farm children spent a great deal of time with one adult and without peers and met a limited number of other adults outside of the family and participated in a more verbal family setting in the evening.

In constructing a measure testing the children's role taking ability, the basic assumption made was that there are three specifiable levels of development (based on Piaget's and Flavell's work) which should be reflected in the children's ability to use the adult personal pronoun system. 1./ The child is egocentric and is only able to project his own knowledge, 2./ The child can imitate the external behavior of others and 3./ He can play the role of a hitherto unknown other by extrapolating from the role system.

Field observation in the two communities has shown that the individuals a child comes in contact with may be divided into three groups ranging from the most to the least familiar. For the purposes of the test, a set of pictures were drawn, depicting a variety of individuals in different kinds of interactions. The pictures were of three principal types, corresponding to the three levels of development mentioned above. The pictures designed to elicit the first level required the child either to play a child's [illegible] the role of an adult talking to a child. In the second level, [illegible]ild had to play the role of an adult in a familiar role, thus making [illegible] easy (examples are such as: the mother in the grocery store, [illegible]father talking to the mailman, father talking to grandfather, etc.). [illegible] third level, the children had to be able to extrapolate from the [illegible]n system and could not imitate since the roles were more or less unknown (examples: father talking to his boss at the cooperative office;

a farmer talking to a tractor driver). Since the role and the personal pronoun system is considerably complex in Hungary the measure was constructed so that even the least familiar roles depicted in the pictures were local and not totally unknown to the child.

The child was shown the pictures and the various figures were identified by those examined: Questioning then took forms such as: "How does your mother greet the shopkeeper when she goes shopping? Ask for some eggs, as your mother would." If the child could supply the entire sentence, it was then given by the examiner in indirect discourse. The child then had to change it to direct discourse appropriate to the adult in the picture.

A point system for scoring was devised, based on a scoring system devised by Flavell for a role taking task (1968). As expected, the children found the use of the reciprocal V, which is not used in their own system and which is not used between family members and between adults most familiar to them, the hardest. No child of any age group in either social setting was able to consistently use this form throughout the pictures. The highest score (4 points) in this age group was therefore given for an inconsistent use of the reciprocal V, which required a recognition of the existence of the form and an attempt at playing vitually unknown roles. On the other extreme, the majority of the children even in the youngest groups, were able to play all child roles and the roles of the adults interacting with children. Successful playing of these roles was therefore set as minimum requirement and received the score of one. Two points were given for imitation of less familiar but frequently encountered adult roles which required the use of the P (for example: mother/storekeeper) and which were easy to imitate. Three points were given if the child played those roles which were easy to imitate. Three points were given if the

child played those roles which were unfamiliar but did not require the use of the V (for example: friends/parents). In all instances, the judgment of correctness of the children's response was based on information elicited from the adults in that community.

The multiple choice test was based on the choice of the three levels of personal pronouns - familiar, polite and formal - and their use by the adults in the communities. A set of twelve pictures and sixteen cut-out figures were drawn by a local artist depicting familiar figures of different ages, sexes, kinship positions and occupations. The person in the picture was supplied with a statement (request or question) which he presumably addressed to one of three cut-out figures which were identified and arranged in a group next to him. The three figures if possbile were selected so that, there was a different personal pronoun appropriate from the sender to each of them, and therefore the sentence in the form given would only be correctly addressed to one of them. The child had to select the correct addressee and explain the reason behind his choice. In some situations when more than one person could be addressed by the same term or when the use of the same term could reasonably be justified with more than one of the characters, and the child could explain his choice, it was also considered correct. In any case, if the child gave an incorrect answer he was quizzed about his choice and frequently even if his first choice was appropriate, he was asked how the major figure would address all three individuals. Some examples are the following:

> Mother, using P asks: "Did you leave the door open?"
> The choice is between: a. Grandfather (appropriate form P), b. Child (appropriate form T) and c. Veterinarian (appropriate form V)
> Doctor, using V states: "You have to take this medicine three times a day."
> The choice is between: a. A stranger from the city (appropriate form V), b. Grandmother (appropriate form P) and c. Teacher (appropriate form V)

In evaluating the results, the interest was not only in correctness vs. incorrectness but also in determining the different strategies used by the different age groups of children and the semantic features which their systems contained. At this point the town and the farm children will be discussed together since there was no difference in the strategies the two groups employed.

As in the role taking task, errors made on the multiple choice test clearly differentiated between adult roles which were more or less familiar to the child. Similarly, children at this age level found the recognition of the distinction between the choice of P or V in the adults' speech problematic. On the basis of the most common errors, the development of the children's comprehension of the adult system may be arranged in the following order: a./ The items in which one of the addressees was a child and the speaker (adult or child) was speaking in T, or where children were speaking in P (to adults) were found to be the easiest. Most of the children encountered no difficulties with this set (probably due to the fact that this was essentially a reproduction of the child's own system.)

b./ Nor did they have difficulties, in general, in assigning the mutual T to adults speaking or being addressed by adults. In most cases, the children clearly differentiated between adults who are on familiar terms from those who are not. (Probably since this is used most frequently between family members and other well known adults).

c./ A large number of children correctly assigned the V where familiar adults were using it. However, in the youngest age group the following type of error was often found:

> Godmother, using V addresses the mother, the doctor and the storekeeper. The appropriate choice is the storekeeper but younger children frequently answer neither and say that the godmother should use P to all three. (Which is what the child would do.).

d./ Familiar adult (mother), using P was a frequently missed item. For example, Mother, using P, addresses the veternarian, the grandfather and the child. Instead of correctly choosing the grandfather on the basis of his age, children chose the veterinarian, basing their choice on his higher status or on his strangeness, perhaps assuming that strangers are addressed in P. Unfortunately, no other item existed where familiar adult spoke in P, however, this example, may be contrasted to the following one:

> Father, speaking in V addresses the doctor, grandmother and godmother. The appropriate choice here is the doctor and most children select this. So that it seems that the problem lies in the use of the P by familiar adults to strangers.

e./ By far the most common error was on items where unfamiliar adults were speaking in P or V. It seems that in the case of adults children were not familiar with, the simplest strategy to assume was an egocentric one. The child extended his own system and assumed that P is used by unfamiliar adults to adult of any category since this is what he would do.

In summary, the younger children used the following rules in differentiating the system used by adults and children:

1. Children use T to children and receive the same from other children.
2. Children use P to adults and receive T in return.
3. Adults who are friends or family use the reciprocal T with other adults unless one of them is considerably older. Adults who are not friends do not do this.
4. Familiar adults use V to unfamiliar adults of the same status and P to people with higher status (or to strangers).
5. Unfamiliar adults use P to all other unfamiliar adults.
6. When confronted with unfamiliar adults using V, the children in this age group are confused.

The results seem to suggest that even at the earliest of the age levels the children distinguish between the P/V use of familiar adults

but have difficulties in assigning the same distinction to unfamiliar adults. By the time they reach the highest age level (9 years), the number of errors becomes very small in both of the groups, most of which occur with unfamiliar adults using V.

On the basis of these features, a point system for scoring was devised which was basically very similar to the scoring used on the role-taking test. Four points were given to the children who almost always correctly distinguished between the unfamiliar adults' use of P and V. Three points were given to those who made errors on these items but dealt successfully with familiar adults, two to those who could not distinguish the features any adult (familiar or unfamiliar) would apply to differentiate between the use of P or V, but who differentiated between these and the adults' use of T Children who had a good knowlege of the children's system only received a score of one.

The children were also ranked on the absolute number of errors they made. However, it was found that the "number of errors" score closely corre ponded to the point score and since the point score was more directly comparable to the scoring used on the role taking task, the "number of errors" score was not used in the final data analysis.

In the following, the differences between the performance of the town and farm children on the two tasks will be discussed. Mean values for the role-taking and the comprehension tasks for the three ages at the two locations are given in table 1.

TABLE 1

Mean Values on Role-Taking and Comprehension for Seven, Eight, and Nine Year Old Town and Farm Children

	Age	Roletaking	Comprehension
Farm	7	1.80	2.00
	8	2.80	3.20
	9	3.00	3.40
Town	7	3.00	3.20
	8	3.00	3.20
	9	3.80	3.80

An analysis of variance indicated significant location effects for both the role-taking task (F for 2 and 23 degrees of freedom is 7, 81, p. less than .01) and the comprehension task (F is equal to 4.13, p less than .05). Also, the mean values in table 1 indicate that the town children achieve higher scores on both measures for all comparisons at all ages, with the exception of one, the comprehension scores for 8 year olds where the means are identical. The farm children never do better at any age level on either measure.

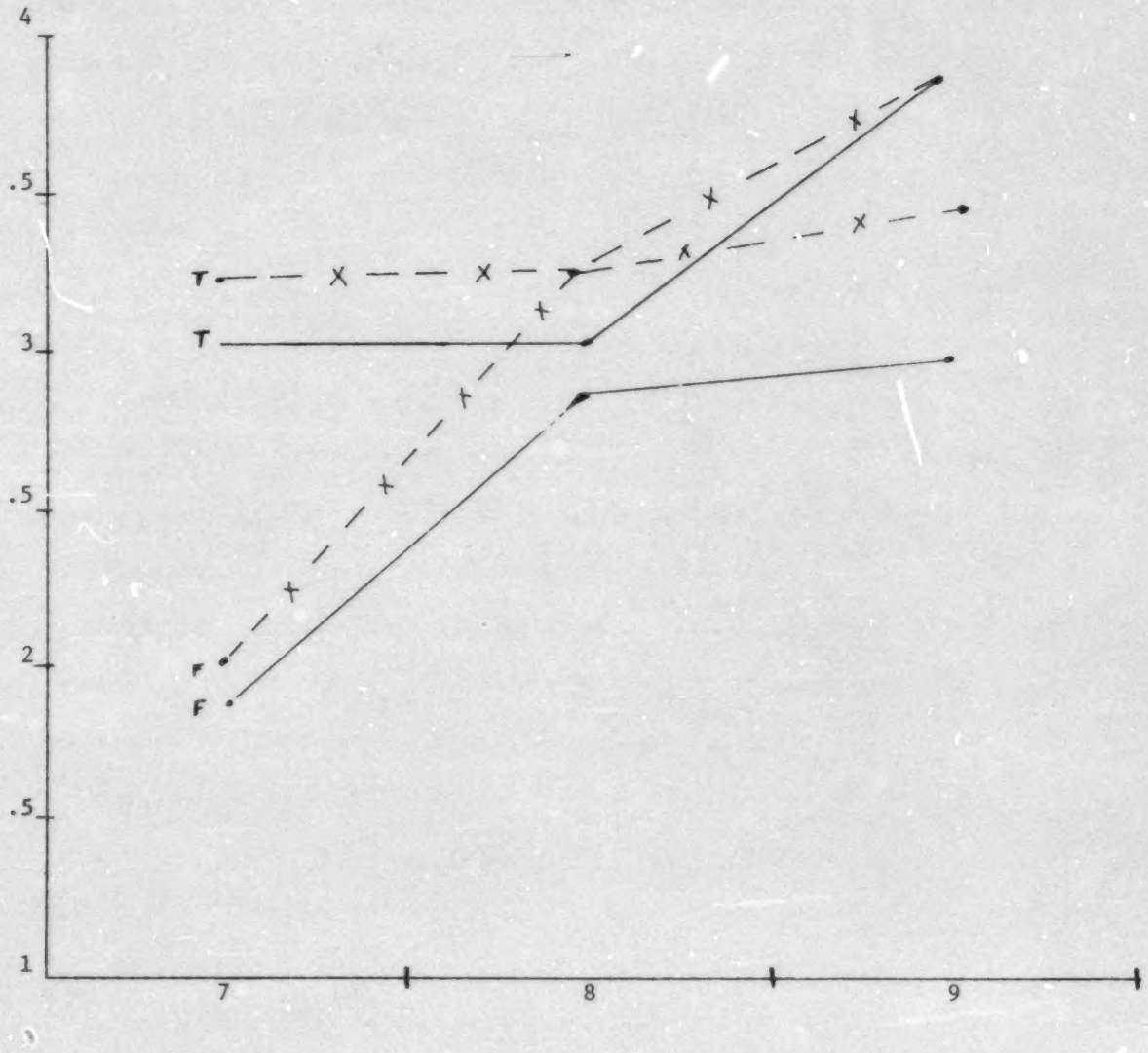
The analysis for age effects revealed a significant effect for both measures (F for role-taking with 4 and 46 degrees of freedom is 4.84 and F for comprehension is 4.90). The difference between the measures

FIGURE 1

Graph of Mean Values on Role Taking and Comprehension

for

Seven, Eight, and Nine Year Old Town (T) and Farm (F) Children



is much less pronounced for the age groups than it is for location effects, although inspection of the mean values of table 1 suggest that the town 7 and 8 year olds are not differentiated by either measure as much as are the farm 7 and 8 year olds. Interaction of age and location effects was not significant.

As can be seen by inspecting table 1, the mean values for the comprehension task are always higher for all groups at all ages, than those for the role-taking tasks, with the exception of the 9 year old town children, where the means are identical. This, however, is not surprising since the mean score of 3.80 indicates a near perfect performance by this group on both tasks. The differences in the value of the F statistic for the two measures (7.81 for role-taking and 4.81 for comprehension) clearly indicates the more difficult nature of the role-taking task. The groups are differentiated much more by the effects of this task than by those of the comprehension task.

The results indicate that although there is a significant difference in the overall performance of the town and the farm children, both groups scored higher on the comprehension test than on the role-taking measure. In other words, their different exposure to social situations and adult roles, in the two environments, as previously described, made little difference in their comprehension or knowledge of the appropriate linguistic form to be used. On the other hand, the difference in their ability to process and use this knowledge by playing the role of others was significantly affected by their environment. It seems that in order to be able to successfully perform that particular task, apart from being aware of the linguistic form and the social rules governing its use, another sort of ability is required. This ability might be defined as an operational component

which enables the child to assume the perspective or the point of view of another. Since children who could not yet perform this operation performed well on the comprehension task, the data suggest that the acquisition of a knowledge of the linguistic norms and comprehension of the social features that govern their use may precede the development of a general communicative ability, but in itself is not a sufficient precondition for it. A knowledge of linguistic forms and social rules alone does not enable the child to play different roles for which he has to acquire a cognitive operation which enables him to switch perspectives with others.

APPENDIX

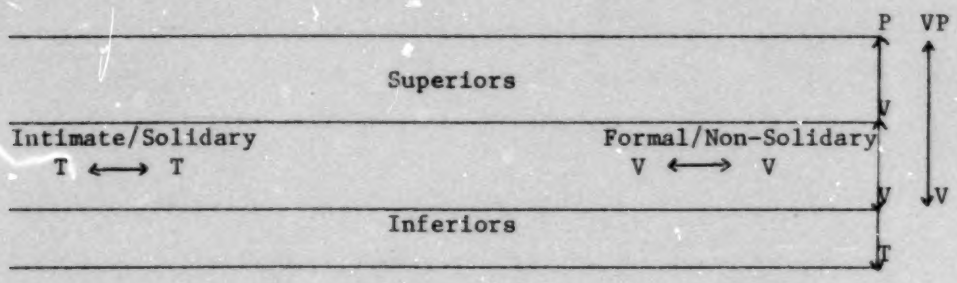
Hungarian personal pronouns and rules for pronoun selection

When addressing others, Hungarian adults choose between four alternative levels as reflected in the following constructions:

1. Familiar, ta plus second person singular verb (T)
2. Formal, maga plus third person singular verb (V)
3. Polite, a construction of title plus last name, honorific plus last name, honorific plus first name plus third person singular of the verb tetazeni (to wish, to like, to please) plus infinitive of the main verb. (P)
4. Formal-polite on plus third person singular verb. (VP)

The children's system contains only the familiar (T) and the polite (P).

With some modifications, the semantic dimensions of the adult system might be depicted on Roger Brown's (1960) two dimensional figure:



In the adult system, the reciprocal T is used between kin of the same age in the rural area, between all kin up to two generations removed in the town and in both communities between same sex friends, same sex co-workers or organization co-members and between opposite sex intimates. A range of subtle differences along the power or status difference axis and in formal distance may be communicated by the choice of various non-reciprocal forms or the reciprocal V. The reciprocal V is used between persons of the same

status who are neither solidary nor intimate (for example, between most males/females, customer/clerk), in situations where the status difference is minimized by working together (for example, boss/worker) and in cases where the status or age difference is not considered sufficient for using the non-reciprocal forms (for example, between waiter/customer, officer/soldier). The non-reciprocal P/T is used between adults who have a considerable age difference, the younger adult addressing the older with P and receiving T. (Formerly, this form was also used between persons of considerable status difference, as for example, between master/servant). Persons with considerable status difference (especially in the rural area) use the non-reciprocal P/V (as for example veterinarian/farmer). The non-reciprocal VP/V is used mostly in formal applications or in situations where not venerance (as with using P/T and P/V) but formal distance is communicated. (For example: in addressing a high functionary or maitre d'/customer). This form is only rarely used in rural areas and was therefore, not included in the task given to the children.

Children use the reciprocal T with other children or younger persons of both sexes (until they reach adolescence) and in the town with all kin, except with the grandparents. In the rural areas the reciprocal T is not used with any older kin: parents, grandparents and godparents receive P and return T to the children. In the town, this non-reciprocal system is used with all non-kin adults.

BIBLIOGRAPHY

Bruner, J.S., R. Olver, and M. Greenfield

1966 Studies in Cognitive Growth. New York, Wiley.

Ervin-Tripp, S. and J. Cook-Gumperz

1974 The Development of communicative strategies in children. MS.

Flavell, John H.

1968 The Development of Role-Taking and Communcation Skills in Children. New York, Wiley.

Piaget, Jean

1970 Structuralism. N.Y. Basic Books.

Schatz, Marilyn and R. Gelman

1973 The Development of Communcation Skills: Modifications in the Speech of Young Children as a Function of Listener. Monographs of the Society for Research in Child Development.

Sinclair deZwart, H.

1969 Developmental psycholinguistics. In David Elkind and John Flavell ed. Studies in Cognitive Development. N.Y. Oxford University Press.

Slobin, Dan I.

1972 Cognitive prerequisites for the development of grammar. In C. Ferguson and D.I. Slobin ed. Studies in Child Language Development. N.Y. Holt, Rinehart, and Winston.